THE

HORTICULTURIST.

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Hints on Grape Culture.—XXXIV.

In response to a number of inquiries, we devote the present article to *Roads*. These are a necessary adjunct to a vineyard, and must not be overlooked. They take up room that might otherwise be devoted to vines; but they save so much manual labor that they can not well be dispensed with, unless the vineyard be of very moderate dimensions. Their usefulness and necessity should be apparent when it is taken into consideration that the vineyard must at times be manured, and the crop gathered and removed. The intervals between the roads should be so regulated as to lessen as much as possible all labor necessarily performed by hand. As a general rule, the principal roads should be from forty to fifty feet apart, and run at right angles with the rows, unless a steep hillside should render this impracticable. There should also, except in small vineyards, be one or more roads running parallel with the rows, as an additional convenience for cartage. In vineyards where vines are in rows eight or ten feet apart, the cart is usually driven between the rows; but we consider the practice open to objection.

The reader will get a better idea of the subject from an illustration, for which purpose we have prepared *Fig.* 1, representing a portion of a vineyard. The vines are planted four feet apart in rows six feet from each other. Here every thirteenth vine is omitted, which makes roads *a*, *a*, eight feet wide, at intervals of forty-eight feet, which is a convenient distance. One row of vines is omitted for the parallel road, *b*, twelve feet wide. A convenient distance for these parallel roads is about one hundred feet. At the time the vineyard is planted, it would be but a little additional trouble to lay out all these roads of a uniform width of eight or ten feet.

Now let us see how these roads are to be used. We will say, for example, that the vineyard is to be manured. The cart is to be driven to the entrance of road *a*, and as much manure thrown off *on each side*, between the two first rows, as will suffice for half a row. The cart is then moved forward, and a heap of manure placed at the entrance of the next two rows; and so on till all the rows have been supplied. If the thing is rightly done, there will be a heap of manure on both sides of the road

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at the head of each row. The manure should be thrown in as far as possible, to save labor in the spreading. The cart will pass through all the roads in this manner; after which the manure is to be spread. In doing this, begin at the heap, and scatter the manure as far as possible with the fork. There will be a small space in the

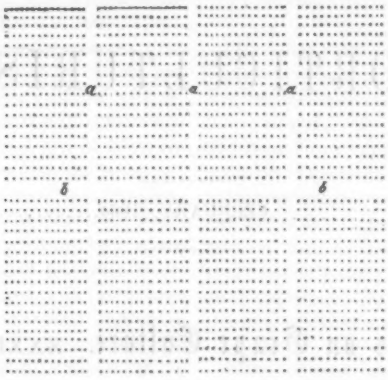


Fig. 1.

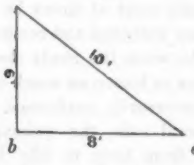
middle not reached in this way, and to this the remaining manure must be carried in a barrow. There will not probably be more than one good barrow load left at each heap, and the labor will consequently be light. If the roads were a little closer together, say about thirty feet, the manure could all be spread from the heaps; but the economy of giving up so much of the vineyard to roads may well be doubted.

Let us now turn our attention to the use of these roads at the time of vintage. The cart enters the road as before, and stops at the head of the first row. The laborers gather the fruit from *half* the rows on each side of the road, and put it in baskets; when these are full, they are carried to the cart, which is moved along as the fruit is gathered. In passing through the next road, the fruit on the other half of the rows is gathered. In taking the fruit from half the rows at a time, much labor is saved in running back and forth; and every step saved in the vineyard is a penny gained.

We have learned, that in laying out vineyards, much trouble is experienced in getting the lines at right angles to each other. The same difficulty is met with in laying out orchards, gardens, &c. There are several ways of meeting it, two of which are here given. It will be borne in mind, however, that vineyards are sometimes located where right-angled lines are not desirable.

Fig. 2 is an illustration of the most usual mode of laying off a right-angled line or corner. Determine where the first row

Fig. 2.

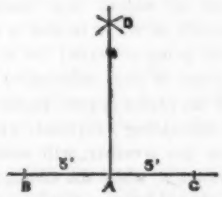


is to run, and spring your line accordingly. Let this line be represented by the line *a*, *b*. Next spring the line in the direction *b*, *c*. Measure off 8 feet on *a*, *b*, and put a pin in the line at that point. In the same way measure off 6 feet on the line *b*, *c*. The pins will be at *a* and *c*. Now take a string or a pole 10 feet long; place one end at *a*, and move the line *b*, *c* till the other end of the string or pole meets the pin at *c*. The lines will then be at right angles with each other. If three narrow pieces of board, re-

spectively 6, 8, and 10 feet long, be nailed together, a right-angled triangle will be formed, which will often be found useful on the farm in laying off orchards, vineyards, fences, foundations, &c. When these pieces are put together, the above measurements should be on the outside edge.

Another method, and one which we have generally used for many years, we first saw in Davies's *Practical Mathematics*, a very able and useful work. It is illustrated in *Fig.* 3, and is of easy and rapid application. Determine the direction of the first row or line, and in springing your line extend it six or eight feet beyond the

Fig. 3.



point at which the angle or corner is to be formed. Let B, C, be this line, and A the corner. At A drive in a small peg or make a little hole. From A measure off 5 feet to C, and put in a peg or pin. Next measure off 5 feet in the opposite direction to B, and put in another peg or pin. Then take a string 10 feet long; place one end at C, and describe an arc. Change the end of the string to B, and describe another arc. The two arcs will intersect each other at D. Now stretch your line so that it passes directly over A and the point where the arcs intersect each other, which will form the line A, D, at right angles with the line B, C. The points where the arcs are described should be made firm and smooth with the foot. In both the examples the lines shoud be stretched tight. We have directed 5 feet to be measured off, and a radius of 10 feet to be used; but any equal distances may be measured off on B, C, even two feet, and the arcs formed with any radius greater than this. The measurements given above, however, are found to be very convenient in practice. By one or other of the above methods the reader will experience little difficulty in laying off his rows.

And here, somewhat abruptly and unexpectedly, we terminate these "Hints" as a connected series. We had designed, when we began them, to describe several other methods of training, particularly some adapted to the garden, as well as other interesting details, including wine making, packing, &c.; but circumstances have occurred which have determined us to conclude where we are. The promised book, however, will be given to the public in good time; and this will include every thing the grape grower should know.

HARDY FERNS.

BY WILLIAM J. DAVIDSON, NEW YORK.

In every garden there is some nook where, shaded from the sun's genial rays, few if any favorite flowers can be grown, and which, from that very cause, is often an eyesore the season round. In such a spot Ferns delight to grow, and will there develop their elegant and graceful fronds, and with their varied colors and feathery forms will impart to the hitherto barren spot a charm and a freshness peculiar to themselves.

In the green-house and conservatory also they form a beautiful ground-work and relief to the more brilliantly colored and rich foliage plants, while in the stove house the finer exotic species revel in the heat and moisture necessary for the proper cultivation of tropical plants, adding a richness and variety to the effect which no other class of plants can give.

With your permission, Mr. Editor, I would offer a few remarks on the manage-

ment of *Hardy Ferns*, in the hope of calling attention to a much neglected class of plants, confident that any one who once commences their cultivation will not think his time or space misemployed. The first necessity for their proper cultivation is *shade;* for though some varieties are found in open meadows or on exposed rocks, yet they never approach to that health and luxuriance which they attain in a shady situation. The structure for their growth must be a matter of taste, though probably the best mode of culture is on banks or rock-work composed of rough stones, the larger the better; "burrs" from a brick-kiln, or what, perhaps, looks as well as any, large, rough pieces of coke dipped twice or thrice in thin cement. These form beautiful "rocks," and being so light, might often be used to advantage in the glass Fern case. Old bricks form an excellent basis for a rock-work, serving at the same time for drainage, and from their porosity holding a large quantity of moisture, are the best possible material to which the roots of ferns may attach themselves. It will be obvious to every one who has seen ferns grow, that a light sandy soil is the most natural, and, therefore, the most suitable. A liberal admixture of wood earth or leaf mould is desirable for some of the finer varieties, while for those that require it, as Cystopteris, some varieties of Asplenium, &c., a small quantity of lime rubbish should be used. The taller and stronger growing varieties may be grown in any good loamy soil, and should be planted principally to the back of the Fernery, so as to allow the finer varieties more light and a little more chance of being seen. Many of the small growing, and some of the drooping kinds, may be planted in crevices of the rocks and stones, and will there soon flourish and make themselves at home. It is necessary, however, in planting, to imitate, as much as possible, their natural habits. Those found in low, damp situations will not flourish on a rock or dry bank, nor will natives of the mountain side grow well in a marshy situation. Take, for instance, our "Woodsia ilvensis," so common in some localities, growing in crevices of the rocks, almost burnt up in summer, and faring still worse in winter. Common sense at once says, a low, damp situation will soon kill it; but choose for it a high and comparatively dry situation, as nearly approaching its native habitat as possible, and you have every chance of success.

In arranging the fernery, the deciduous and evergreen varieties should be so planted, that even in the winter months, when the foliage of the former has died off, the latter may still keep up the interest, and relieve the barrenness and ruggedness of the rocks till the return of spring bids them all unfold new beauties. A liberal supply of water is also a requisite to the well being of ferns; for in our hot summer days, if once allowed to flag, the beauty of the plants is gone for the season. A slight sprinkling overhead, with a fine syringe, in hot weather, will soon tell to their advantage, while the strong growing varieties should have as much at the roots as they can use, especially in the growing season. As regards the most suitable kinds, I would name the following as most easily procured, though many others, especially the cultivated varieties of the British species, are equally desirable, and add fresh beauty and interest to any collection:

Osmunda cinnamomea, O. spectabilis, O. Claytoniana.—These are all common and very showy varieties, with contracted flower spikes, growing from 2 to 5 feet high, and delight in a moist situation.

Onoclea sensibilis.—Also a common and beautiful fern, about 2 feet high. The fertile spike much contracted.

Aspidium Novoboracense.—A beautiful pale green, delicate swamp fern, about 2 to 5 feet high.

Aspidium spinulosum and its varieties are not uncommon, and are all beautiful. 1 to 2 feet high.

A. cristatum.—A noble looking swamp

fern, with conspicuous fruit dots, two feet high.

A. Goldianum, a more rare but stately and showy fern 2 to 4 feet high.

A. marginale, and *A. acrostichoides*.—The fronds of these two species keep green through the winter. Very useful ferns, 1 to 3 feet high.

Cystopteris fragilis, *C. bulbifera*, *Woodsia obtusa*, and *W. ilvensis*, have all beautifully divided fronds about a foot long, and are indispensable.

Dicksonia punctilobula, a very graceful, sweet-scented fern about 3 feet high, found in moist, shady woods.

Athyrium filix-fœmina.—The graceful "Lady Fern" must have a conspicuous place; a truly beautiful fern, 1 to 3 feet high.

Several varieties of Asplenium can also be grown to advantage, and being evergreen, are especially valuable:

Asplenium trichomanes, *A. ebeneum*, *A. ruta-muraria*.—All dwarf varieties, from 2 to 12 inches high.

The *Camptosorus rhizophyllus* and *Scolopendrium officinarum*, with its varieties, are also evergreen, and add greatly to the winter beauty of the former.

Our beautiful "Maiden-hair Fern," *Adiantum pedatum*, must also have a prominent situation, as must also *Woodwardia radicans* and *W. Virginica*, both beautiful and graceful ferns.

Polypodium vulgare is also essential, and will thrive in almost any situation.

Nor would I omit the rare *Lygodium palmatum*, or "Climbing fern," the different varieties of *Botrychium*, *Ophioglossum*, and *Lycopodium*, all to be had for the looking for, each new plant procured giving a fresh interest to and delight in the hardy fernery.

These are all native Ferns, and the greater part of them can be gathered in an hour's ramble in the country.

Of rarer cultivated hardy ferns, I would mention *Aspidium filix-mas cristata*, a most beautiful fern. *Polystichum* (*Aspidium*) *angulare*, *P. depauperatum*, *P. proliferum Woolastoni*, *Blechnum spicant*, and a few of the many varieties of *Scolopendrium officinarum*, *Polypodium vulgare*, and *Athyrium filix-fœmina*.

[We are obliged to you, Mr. Davidson, for having introduced such an interesting subject. Very few know how much pleasure can be derived from a collection of native Ferns. For the ladies, especially, they have peculiar charms. Among the many interesting objects to be seen at Mr. Downing's, there is scarcely any thing more so than his wife's collection of native Ferns; each one, in her case, is an endearing memento. To the ladies we would in an especial manner commend the Ferns, both native and exotic. A large house, devoted entirely to these plants, would be a grand sight, with their diversified forms and graceful habits. Since you have your hand in, Mr. Davidson, we must call upon you to write an article on exotic Ferns for the ladies. You are altogether a ladies' man, and, of course, will be delighted with the task. We should.—Ed.]

A COUNTRY CHAPEL.

BY MEAD & WOODWARD, ARCHITECTS, &C., 37 PARK ROW, NEW YORK.

Places of Christian worship, since the days of Constantine the Great, may almost be claimed as types of progress in themselves. By him the early Christians were permitted to build some of their churches on the plan of the ancient Basilicæ, a kind of public hall or court of judicature, constructed with porticoes, a large hall, aisles, and tribunals. This style was followed by the Romanesque and Gothic, stretching over a vast range of discordant detail and fragmentary style; but finally emerging from the gloom of centuries with all the significance of a purified and revolutionized art.

Figures 60 and 61 are designed to illustrate the simpler, purer type of chapel edifice, suited to country worship, such as ought to be in every hamlet or village throughout the land.

Churches are among the best evidences we can possibly have of the growth of a community in religious and moral culture; and ever since the days when Jesus of Nazareth taught among men on the plains

Fig. 60.—Perspective.

of Palestine and the shores of Galilee, the way and the life, and wherever the sweet, sad tones of His promise have thrilled the wayworn and weary soul deepest, and lingered longest, there have stood places of Christian worship, like so many Bethlehem stars over against the incoming generation, pointing out the way to liberty, light, and truth.

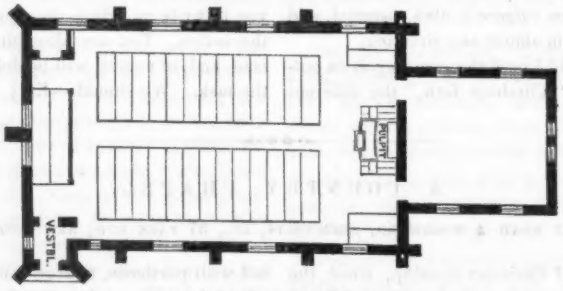


Fig. 61.—Ground Plan.

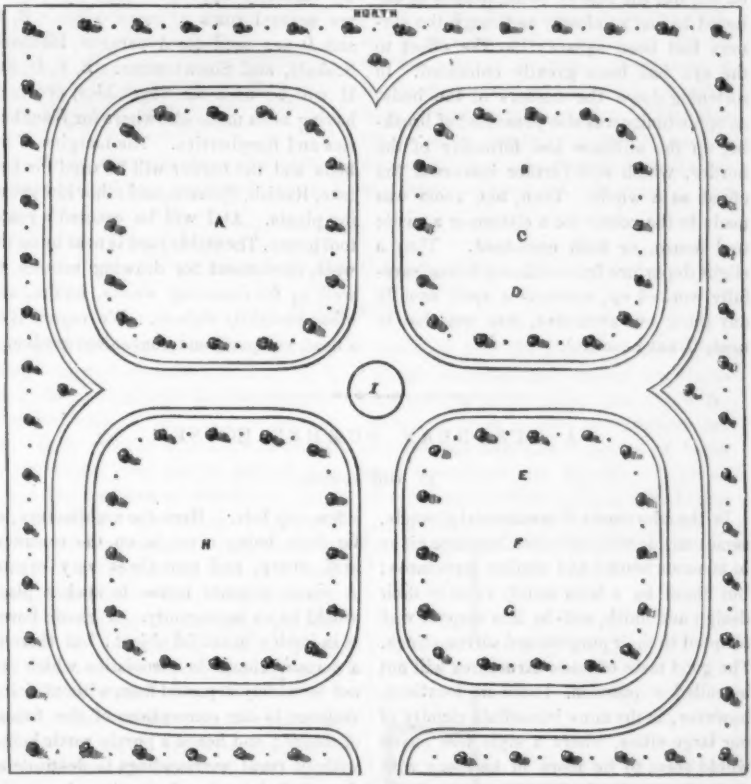
It is a mournful thing to witness a thriving village without a church; filled, perhaps, with beautiful homes, upon whose bosoms have been poured the evidences of lengthened prosperity, and of love for those who dwell there; yet amid all the luxury of tesselated floors and gilded ceil-

ings, not one thought of God who gave, "not one tithe," not an offering to witness the gratitude of grateful hearts toward Him who is our strength and our reward. The cost of this chapel, with an open timbered roof and style of finish suited to its character, would be from $7,000 to $9,000, according to the locality and working facilities at hand.

AN ORNAMENTAL FRUIT AND VEGETABLE GARDEN.

BY THE EDITOR.

It is some time since we have given any thing in the way of a garden sketch. We propose now to make amends for it, and give a sketch occasionally which may be devoted to some useful purpose. We can conceive of no good reason why the fruit



and kitchen garden should not be made an ornamental as well as useful feature, especially where the garden must necessarily be in sight; and in grounds of limited ex-

tent concealment is not often possible. This was the case in the present instance, the garden being in sight, not only from the dwelling, but also from the road. It was attempted, therefore, to make it an ornamental feature, and we think not without success.

In forming the beds of a kitchen garden, the sides, for obvious reasons, should be straight lines. If this rule is departed from, the beds should be made to assume such figures as will admit of straight lines within them, as far as possible. In planning the accompanying design, this rule was kept in view. The corners are rounded off, but the rule of straight lines as adhered to just as closely as though the corners had been square; but the effect to the eye has been greatly enhanced. In softening down the corners of the beds, an opportunity was also presented of breaking up the stiffness and formality of the border, which still further increased the effect as a whole. Then, too, room was made in the center for a cistern or a rustic tool house, or both combined. Thus a slight departure from ordinary forms, carefully worked up, converts a spot, usually any thing but attractive, into one that is neat, if not beautiful.

We made the design for Byron Murray, Esq., at whose country seat at Englewood, N. J., it has been laid out. The effect is pleasing and satisfactory, and the plan is much admired. It is located on a piece of ground sloping gently to the south. On the north it is protected by a fence, and on the west by the stable. The exposure to the south and east is open. The surrounding border, ten feet wide, is planted with dwarf Pears, with a Currant bush between. The four beds are fifty feet square, and along the margin, five feet from the walk, are planted dwarf Pears, with Gooseberry bushes between each. The beds may be variously appropriated. At A there are several rows of grape vines. B, C, and D are used for Asparagus, Rhubarb, Seakale, and Strawberries. E, F, G, and H will be used for vegetables, provision having been made elsewhere for Blackberries and Raspberries. The margins of the beds and the border will be used for Lettuce, Radish, Spinach, and other low growing plants. At I will be erected a rustic tool house. The stable yard is near by on the west, convenient for drawing manure, as well as for removing weeds, haulm, and other unsightly objects. We regard it as a neat, compact, and convenient garden.

A SUBURBAN SUMMER HOUSE.

BY THE EDITOR.

In the adornment of ornamental grounds, some considerable attention has been given to summer houses and similar structures; but these have been mainly *rustic* in their design and finish, and in this respect well adapted to their purpose and surroundings. The good taste of these structures will not be called in question. There are locations, however, in the more immediate vicinity of our large cities, where a style less rustic would seem to be more in harmony with the architecture which is found to prevail. We refer to residences on the outskirts of our large cities, with inclosures containing a few city lots. Here the architecture, so far from being rural, is, on the contrary, stiff, sharp, and sometimes very ornate. A rustic summer house in such a place would be an incongruity. A rustic house is in itself a beautiful object; but there is a certain charm in association which can not be widely departed from without doing violence to our conceptions of the fitness of things; and hence a purely rustic house without rural surroundings is destitute of the chief elements which give rise to the beautiful. Most persons would say it was out of place.

The design herewith presented was prepared to meet the requirements of such a

case; it is consequently somewhat elaborate. It is located on a small plot of ground within the city limits, and in full view from three streets. The grounds are laid out with a few rectangular walks, and such shrubs as the small size of the place would admit of. The house, we think, corresponds with its surroundings. Its faults, if any, are a little too much ornament, but something of this kind seemed to be required in the absence of that more beautiful ornamentation produced by the drapery of Nature. The house is so located that it receives the morning sun for a few hours, but during the rest of the day is in the shade; it therefore constitutes a pleasant place of retreat for the family at all hours, and is used by the children freely as a play house. The floor is laid in narrow stuff, and is elevated a foot above the ground for the sake of dryness. Easy seats, a handsome center table, and a hanging lamp complete the interior. Venetian blinds afford ample protection on a misty day or a chilly night, or admit the soft summer breeze on a hot and sultry eve.

PLANT HOUSES.—IX.

BY THE EDITOR.

Our next illustration is a hot grapery that we designed several years since for J. Lanyer, Esq. It is forty-one feet long and twenty feet wide. *Fig.* 1 is a perspective view. It is covered with a low, continuous, curvilinear roof, and is without side lights. The omission of side lights materially lessens the cost of the house, and secures additional warmth. In some cases, side lights serve no other purpose than architectural effect. Graperies, propagating houses, and plant houses generally may very well be constructed without them; some of these houses, indeed, are very much better without them.

In the present instance, to prevent what is called a "squatty" appearance, and also to give additional headway, the side walls were carried up some twenty inches above the ground line. The house is thus made to assume a handsome appearance. Air is introduced into the house at the sides, through under-ground wooden air chambers opening on the inside near the walk. Instead of these wooden air chambers, we now use six inch glazed pipes, as being more convenient and durable. It is an effective and excellent mode of introducing

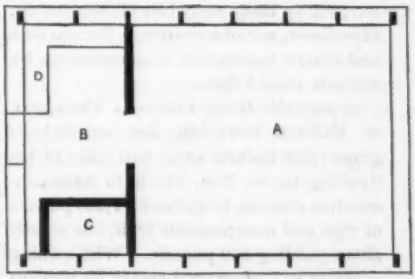


Fig. 62.—Ground Plan.

fresh air, without letting it directly on the

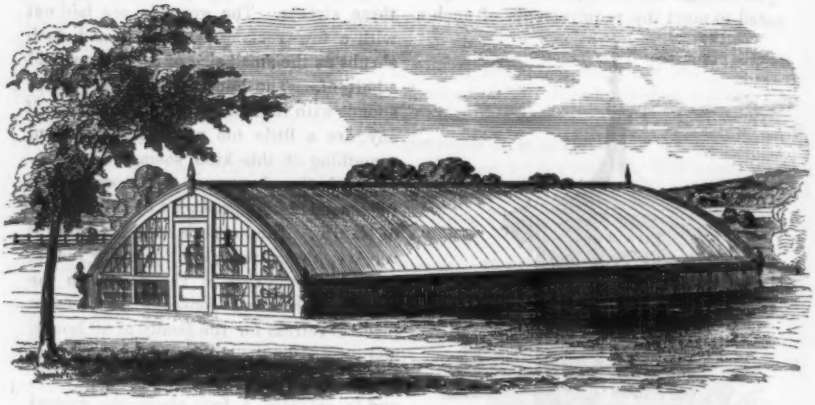


Fig. 1.---Perspective.

plants. Ventilation is effected by the sash over the end doors, and also by ventilators placed along the ridge board.

Fig. 2 is the ground plan. At the north end a small room is partitioned off for a boiler pit. On one side is a chest of drawers for seeds, &c., and on the other some shelving. In connection with the boiler pit is a coal bin, not, however, of very large capacity. The house is heated by two four-inch pipes, the design being not to work the house very early. The border is entirely inside the house, and is composed principally of sod, muck, and gravel, with the addition of some old manure and bone shavings. The vines have done well, annually ripening a fine crop of fruit, and the house has in all respects proved to be satisfactory.

GLEANINGS FROM OUR NOTE BOOK.

BY A. G. HANFORD.

In our intercourse with farmers and fruit growers in different parts of the country we pick up many stray bits of information, experience, and observation. For our own and others' benefit and encouragement, we ofttimes record them.

A profitable Grape Vine.—A. Thompson, of Madison Township, has an Isabella grape vine trained over two sides of his dwelling house, from which, in three consecutive seasons, he gathered 1,200 pounds of ripe and merchantable fruit, one season alone yielding 500 pounds. Who owning a square rod of ground would be without a grape vine?

Lawton Blackberry.—Mr. Thompson does not succeed with the Lawton. We suggested that he grew too many suckers and too much grass among them. His neighbor, C. Limpert, whose land is similar, and only a few rods distant, has had remarkable success with the Lawton. From three rows of ten stools each, thirty hills or stools in all, he gathered, in 1861, ten bushels of fruit, and in three years past twenty-two or twenty-three bushels. His bearing canes are pruned and trained to a wire trellis, sloping about twenty-five degrees, and the ground very thoroughly cultivated.

Delaware Grape.—Mr. Limpert succeeds finely with the Delaware grape. With him

it is a *strong* grower, exceedingly productive. The berry and bunch increase in size as the vines grow older.

Pears every Year.—Within a few feet of the kitchen door is a tree of the old English Jargonelle Pear, its branches spreading over and around the kitchen chimney. Here was discovered the secret of Mr. Limpert's successful competition at the horticultural exhibitions of our county and township fairs.

This tree has been grafted with a number of varieties, a single limb or branch to a sort. When others, with trees less *fortunately* situated, have their fruit cut off by untimely frosts, the proximity to the house, with the smoke and warmth from the chimney, has saved his, and year after year he is enabled to exhibit a dozen or more plates of fine fruit, the product of this one tree.

Pear on Apple.—Near by is growing an apple tree, one limb of which was grafted some fifteen years ago with a scion from the Jargonelle Pear, and has borne many fine crops. This year it was bending under the weight of a bushel or more of large, fine fruit. When nearly ripe the branch was broken off by a storm.

How early may trees be moved in Autumn?—We are frequently asked this question. The instance we are about to relate is an extreme one, and will serve to show that, when proper care is used, it may be done much earlier than is generally supposed safe. J. A. Carpenter, nurseryman, of Cobden, Ill., dug some apple trees the latter part of August, 1859, first carefully removing all the foliage. These he had on exhibition at the Illinois State Fair at Freeport in September; also, the week following, at the United States Fair at Chicago. After being out of the ground three weeks they were heeled in, and the following spring planted in the orchard. *All* lived, and grew as thriftily as others freshly taken up and planted at the same time.

Crab Cider.—Nelson Hoyt, of Worthington, made nine barrels of cider from the produce of seven small Virginia crab trees, for which he received $72: double the price of cider from common apples.

Plums—The Curculio: What to do with them.—S. Creighton, of Lithopolis, brought plums into the Columbus market the past summer by the wagon load. Says he has tried various methods for preventing the depredations of the Curculio, and has at last settled upon "*the spread sheet and jarring process*" as the most effectual. One year he applied with a syringe, a preparation of lime, soap, &c., with very good success, saving the plums; but the Curculio, driven from its first choice, resorted to his peaches and apples, nearly destroying the crop. By the jarring he is enabled to destroy the curculio, and thus not only save his plums, but his peaches and other fruit.

[Your "gleanings" are so interesting, that we venture to hope your "note book" is of no ordinary size. It is not often that the Pear worked on the Apple does as well as the case you mention. Our correspondent, "Horticola," last spring worked some Pear scions on the Paradise stock, and they made a fine growth. The union, however, in such cases is not generally very perfect, and the tree requires to be closely watched and protected. It may be presumed that Mr. Carpenter's apple trees lived because they *fair*-ed so well. The fact, however, is interesting. If all would unite upon the "spread sheet and jarring process," Plums would become almost as plentiful as Peaches in our markets. It is not as troublesome as most people imagine. —Ed.]

ICE HOUSES.

BY MEAD & WOODWARD, ARCHITECTS, &C., 37 PARK ROW, N. Y.

From the hot-house to the ice-house we experience the change of temperature

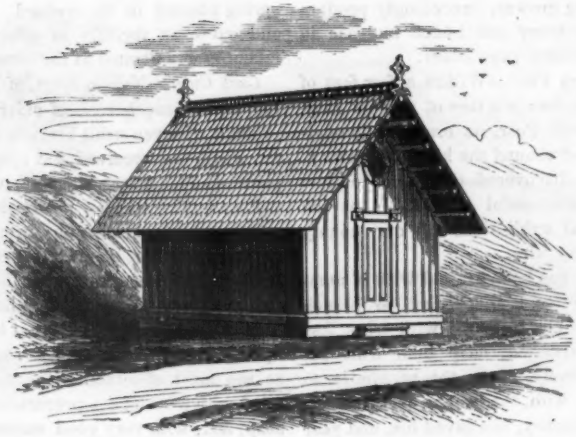


Fig. 62.---Perspective.

necessary to administer to the comforts and luxuries of rural life. It is only within a few years that ice, in all seasons, has been classed among the necessaries of life. In large cities it is indispensable, but the cool spring-house or cellar in the country impresses many with the idea that ice, in summer months, can only be regarded as a luxury. Along with other conveniences in keeping with this progressive age, the ice-house has its place, and a country-seat of any pretensions is not complete without it.

It is simple in construction, and can be built very cheaply of rough materials, or made as elaborate as is desirable. It forms a pretty feature about the grounds, if treated with some architectural taste. The design herewith given, is just in time to get ready for the present season; and

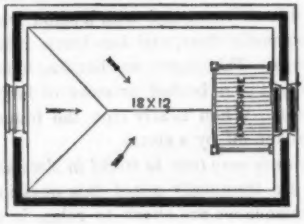


Fig. 63.---Ground Plan.

those who can gather a hint from this, and construct at once, will be glad of it next July.

DOYENNE AND FONDANTE DU COMICE PEARS.

BY THE EDITOR.

It is much to be regretted that such similar names should be given to fruits, more especially where one is good and the other is not. This practice has already produced much confusion in nomenclature, and is in itself an evil which every pomologist should set his face against. Besides, in the present instance, the Pears are not so dissimilar, at a casual glance, that one might not, by some, be mistaken for the other, ripening, as they do, at the same time. The short and stout stalk, and very small calyx, of the Doyenné, however, will sufficiently distinguish it from the Fondante without

further examination. To help the reader to distinguish between them, we have prepared portraits of both, taken from samples of fruit sent us by Mr. Downing. We

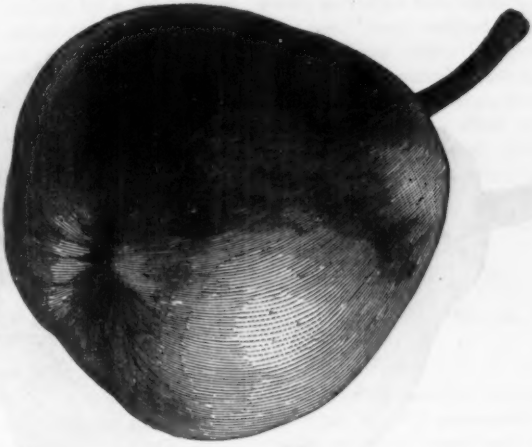


Fig. 1.—Fondante du Comice.

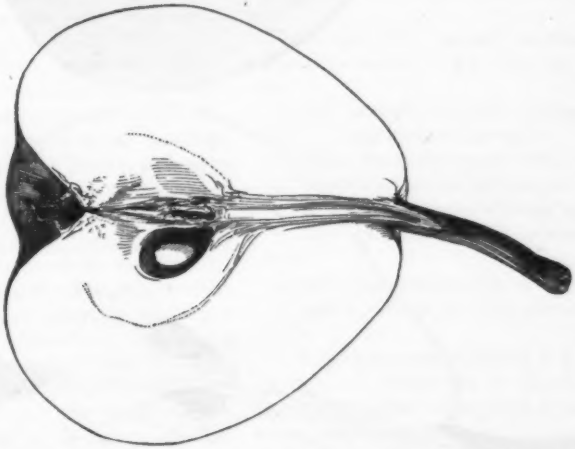


Fig. 2.—Section.

had intended to institute some comparisons between them; but it is hardly worth while, for the Fondante, as we have hitherto seen it, is so much inferior to the Doyenne, that it is really not worth growing; and for this reason, and also because of the similarity of the names, we hope it will be discarded.

By request, Mr. Downing has sent us a description of both. In regard to the Fondante, Mr. Downing says, "It has not yet been perfect with me, and I can not say any thing positive in regard to its flavor." We fear he will have to wait long before he has a specimen that he can call more than "good;" and of "good" pears we already have more than enough. He adds, "It is not equal to Doyenne du Comice by a good deal. The trees are both good growers, but not very vigorous; and bot

seem to thrive pretty well as dwarfs, so far as proved; yet I should think they would not hold their vigor as long as some sorts." The following is Mr. Downing's description:

Fig. 3.—Doyenne du Comice.

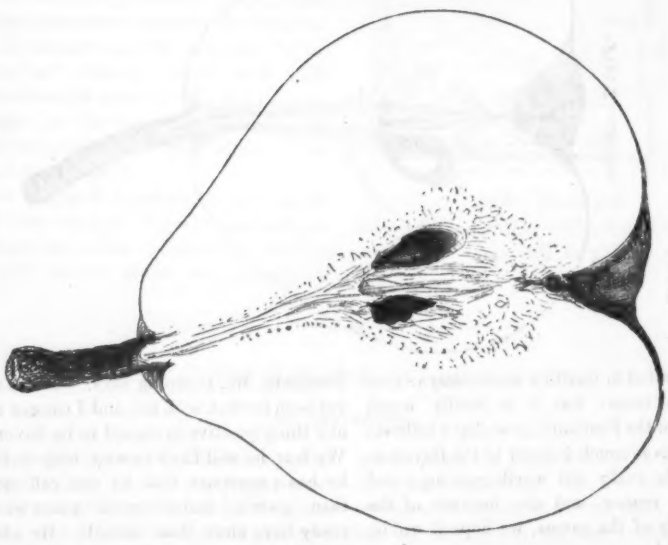


Fig. 4.—Section.

Fondante du Comice.—*Fruit* medium, short truncate pyriform, sides unequal, angular, a little inclined. *Skin*, pale yellow, rarely with a shade of crimson in the sun; sometimes slight nettings of russet,

and thickly sprinkled with brown and russet dots. *Stalk*, medium length, small, inclined, slightly curved, inserted in a shallow cavity, sometimes by a lip. *Calyx* open, segments rather short, erect, sometimes slightly curved. *Basin*, large, deep, and uneven. *Flesh*, whitish, juicy, melting, with a pleasant, slightly perfumed flavor, not rich. Ripe in October and November.

Doyenne du Comice.—*Fruit*, rather large, depressed pyriform, somewhat pyramidal, inclined, truncate, slightly angular. *Skin*, greenish yellow, becoming fine yellow at maturity, often slightly shaded with crimson and fawn in the sun, sometimes with slight nettings and patches of russet, and thickly sprinkled with russet dots. *Stalk*, short and stout, inclined, inserted in a shallow cavity, often russeted. *Calyx* small, open or partially closed, segments small, erect. *Basin*, large, deep, and uneven. *Core*, small. *Flesh*, white, fine, melting, a little buttery, juicy, with a sweet, rich, refreshing flavor, slightly aromatic. *Quality*, "very good," or "best." Ripe in October and November.

WAYSIDE THOUGHTS UPON ARCHITECTURE.—NO. III.

BY ARTIFICER.

Neutral Tints.—And now that enough has been said about graining to enable the reader to form a pretty correct estimate of what materials are good and what should be used, I propose to give some directions for the preparation of *neutral tints*, as well as inquire into some of the leading principles that ought to govern their production, principally for exterior house painting; and here I confess to having attained to the most difficult part of my self-imposed task.

I presume the term "neutral tints" is well enough understood theoretically, though its practical significance be not fully comprehended. In connection with architecture, it does not mean any one of the positive colors, as white, black, red, blue, &c., nor a single compound of some particular and specified *two* positives, producing only and at all times a specified color; but it *does* mean such a use and combination of positive colors as will produce, in harmony and variety, any and all the intermediate tones from white to black.

Those tones are most perfectly neutral that are made to possess the most relative harmony without striking contrast.

When two or more tones are employed on one separate subject, as in the case of parti-colored painting for trimmings and the body of the building, they should harmonize, with only perceptible difference enough in tone to make them distinguishable.

The harmony of colors may be stated, as a general principle, in the following manner:

1. Red harmonizes with orange or yellow, though positive in tone.
2. Orange harmonizes with drab.
3. Yellow harmonizes with white.
4. Green harmonizes with blue or yellow.
5. Blue harmonizes with white and green.
6. Indigo harmonizes with violet.
7. Brown harmonizes with greens and blacks.
8. Violet harmonizes with pink or purple.

But in the production of neutral tints they may be better exemplified in the following practical methods.

1st. *Cream Color* is produced by using equal parts of *white* and *red lead*, English Venetian red 1 part, chrome yellow 2 parts, ground in oil. *Free Stone* color harmonizes with this, and is produced with red lead as a principal ingredient, English Venetian red one part, lampblack one part, and French yellow two parts, ground in oil and turpentine.

2d. *Drab* is produced with white lead,

French yellow, and lampblack, ground in three parts oil and one of turpentine. *Orange* harmonizes with drab, and may be produced of a pleasing tint with French and chrome yellows equal parts, half the quantity of white and red lead, ground in oil.

3d. *Fawn Color*—Reduce raw terra sienna to powder, and use one pound to fifty pounds of white lead ground in oil. A beautiful warm *Drab* to harmonize with this may be prepared with white lead two and a half parts, burnt umber one and a half parts, raw terra sienna half part, and enough of the best English Venetian red to stain the colors and impart a warm hue.

4th. *French Gray* of a superior quality and color may be produced with white lead three parts, Prussian blue one part, vermilion half part, burnt terra sienna quarter part, ground in oil and a small portion of turpentine. Substitute carmine for vermilion in the last coat. *Straw Color* harmonizes with the above, and may be produced with white lead three parts, chrome yellow one part, ground in three parts oil and one of turpentine. *Buff*, also, will harmonize with French gray, it being nearly the same as straw color, and is prepared with white lead four parts, French and chrome yellows two parts each, and one part red lead.

5th. *Pearl Gray* is produced with white lead and equal parts of Prussian blue and lampblack, mixed in oil. *Free Stone* harmonizes with this, and is usually produced with red lead as a principal ingredient, and English Venetian red one part, lampblack one part, and French yellow two parts, ground in oil and turpentine. To lighten the tint a small quantity of white lead may be used.

6th. Another good *Fawn Color* may be produced with white lead as a base, and equal parts of vermilion or carmine, and stone ochre, ground in oil. *Pearl Gray* does well with this also, prepared as specified in the 5th section.

7th. To prepare a pleasing *Chestnut Color*, mix stone yellow, vermilion, and black, using white lead as a base, ground in oil. *Chocolate Color* harmonizes with this, and may be produced with white lead three parts, common Venetian red two parts, red lead one part, and black one part, ground in boiled linseed oil, to harden the color.

8th. A good *Stone Color* may be produced with white lead as a base, and equal parts of burnt umber and yellow ochre. *Fawn Color*, as specified in section 6th, does well with this.

I have now extended my hints upon the subjects of house painting far enough, I trust, to make the attentive reader quite familiar with some of its best materials, and the best methods for employing them; and where the proportions have been given, they may be taken for as safe and proper rules as can probably be ever attained to, in a branch of art whose governing law is taste rather than rule.

[We had supposed that we might be able to illustrate this article on "Neutral Tints;" but it was found that the colors would in time fade so much as to mislead. The details are so minutely given, however, that the reader will have little difficulty in producing the tints for himself. —Ed.]

HOT BEDS.

BY THE EDITOR.

As the season is approaching for the use of hot-beds, a few words about the best mode of making them will not be out of place. We have no idea of saying any thing new, but hope to say something that may be useful to beginners.

A hot-bed should be located in a spot that is well sheltered on the north and west, and open to the south and east. If shelter is not already provided by a fence, wall, shrubbery, or something of the kind, a cheap temporary fence may be erected of rough boards, straw mats, or in some other way that the reader's ingenuity may suggest. This shelter or protection is needed chiefly to prevent an undue radiation of heat from the glass, and the entrance of a strong, cold current of air when the sashes are lifted for ventilation. This radiation is not only hurtful to the plants by causing sudden and extreme changes of temperature, but, if allowed to proceed too far, will cause the heat of the bed to "run out." Let the shelter, therefore, be as thorough as possible. Six feet would be none too high for the fence; but three feet would be much better than none.

The location should not only be well sheltered, but it should be dry. If the material of the bed becomes unduly wet, fermentation will cease, and with it the heat. Manure will no more ferment when it is too wet than when it is too dry.

Hot-beds are sometimes made on the surface, and sometimes in pits. We shall describe the formation of both, though we give a decided preference to those made in pits. But first of all let us get ready the frame, which should be made of well seasoned pine, from an inch to an inch and a half thick. Six feet we have found to be a convenient width from top to bottom. The length must be determined by the reader's wants; we would not advise less than two sashes in length, even for a very small place. The height at the back may be from 18 to 20 inches; the front three inches less. (See *Fig.* 1, in which *a* de-

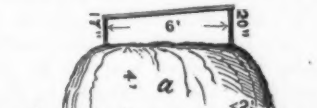


Fig. 1.

notes the manure heap. The figures give the dimensions.) If boards are scarce, the back may be 12 inches high, and the front 9. If the frame is of any considerable length, it should be strengthened by cross bars, three inches by one. It is quite usual to make the frame of rough boards; but it is neater, and in the end cheaper, to plane and tongue them, and give them two or three coats of stone paint. The inside should be white, but the outside may be of any color that suits the taste.

The sashes will be about three feet and a half wide; the exact width will be determined by the size of the glass. The largest glass that we use is eight by ten. The sash frame should be made of stuff not less than one and a half inches thick. The sides of the frame may be an inch and a half or two inches wide, the top piece two inches wide, and the bottom piece two and a half or three inches. The glass should be bedded in aquaria cement, and the laps should not exceed an eighth of an inch. Some sort of cover will be needed. Straw mats are the best and cheapest that can be got conveniently. In frames that are started very early, for forcing cucumbers, &c., some additional covering will be needed, especially on very cold nights; and this will be afforded by boards, or by doors made on purpose.

Having prepared the frame, let us now turn our attention to the materials for forming the bed. For this purpose we can use manure, or leaves, or manure and leaves combined. Manure alone gives the strongest heat, leaves the most durable. Where a moderate but long-continued heat is desirable, leaves alone should be used. For general purposes, it is an excellent plan to add from a third to a half of leaves to the manure. Oak leaves alone have been recommended for this purpose; but you need not trouble yourself on this point, but go into the woods and gather any leaves you can find: we have found them all good.

If the bed is to be made entirely of leaves, proceed as follows: Put down

a layer about a foot thick, and beat or trample the leaves firmly together. If they are dry, they must be moistened, but not soddened. Put on layer after layer in the same way, and be sure to pack the leaves together, otherwise fermentation will hardly take place. The heap should, if possible, be made under a shed; otherwise it should be covered with boards or straw mats. In about a week the heap should be turned, the leaves being well packed together, as before. In three or four days more the bed may be made.

Mark out on the spot selected a space two feet wider and longer than the frame. On this place the leaves in layers, beating them well together with the fork. Continue in this way till the bed is about four feet thick, finishing the top off evenly. Then put on the frame and sashes. The straw mats must be put on every afternoon just before the sun goes down; and this must be continued until there is no longer any danger from frost. That part of the bed of leaves on the outside of the frame must be covered with coarse litter, hay, or straw. The litter should lay well up against the frame.

In the course of a day or two the heat will begin to rise, and when this takes place is the time to put in the mould. This may be any light garden mould, but it must not be wet or muddy. The heap of mould should be prepared beforehand; a good plan being to lay it aside under cover in the fall. Put in from six to eight inches of mould, spread it evenly, and avoid any unnecessary exposure of the frame. When done, close up the frame tight. In a couple of days the soil will be nicely warmed through. It will be necessary, when the sun is out bright, to open the upper end of the sash a little to let off the surplus heat; but less ventilation is needed with leaves than with manure.

It is usual to sow the seed as soon as the soil is properly warmed; but in that case you get a very annoying crop of weeds. If not belated, we generally refrain from sowing the seed for a few days, during which time all the weed seed within an inch or so of the surface come up. We then take a sharp trowel or pushing hoe, and run it half an inch beneath the surface, cutting off all the weeds. In doing this, you should be careful to disturb the soil beneath as little as possible; for if you turn up a fresh surface, you will only insure another crop of weeds. If carefully done, comparatively few weeds will come up, and much time and labor will thus be saved.

Let us next give our attention to a bed above ground, formed of manure and leaves, the latter constituting from a third to a half of the heap. The manure should be recent or green, long and short mixed together, excluding, however, every thing like corn stalks. Put down a layer of leaves and another of manure, beating it moderately firm with the fork. Continue this till the heap is completed, as directed for the first heap. The leaves should be a little moist, but this is not so important as in the first case, since the leaves will get moistened by the manure. If the heap is not formed under cover, it should be protected by boards. In a few days the heap will begin to ferment. At the end of a week it should be turned; and in doing this the leaves should be thoroughly mixed with the manure. Fermentation will now begin almost immediately. This should be allowed to go on for two or three days, when the heap should be turned again. By turning the heap two or three times, the heat is rendered more uniform and lasting. We have made tolerably good beds by laying the manure in a heap for a week, and then putting it directly in the beds, mixing it well at the time of doing so; but the heat has been unequal. The first plan is much the best.

The manure heap being ready, mark off the bed as before, and then spread the manure in layers about a foot thick, beating each layer moderately firm with the back of the fork. The bed should be about three feet thick. A bed made later may be thinner. As soon as the bed is formed the frame and sashes should be put on. We

may as well say that a lazy man should not be set to make an early hot-bed. Put some coarse litter around the frame on the outside, so that it comes well up to the top. In this condition let the bed remain for a few days. The heat will not be so strong in such a bed as in one made entirely of manure; but it will be stronger than in that made of leaves, and will consequently need a little more ventilation until the heat becomes moderate and regular. If steam accumulates, it must be let off by raising the sash a little higher at the top; but care must be taken to let the sash down before the temperature has been too much reduced. At night the bed must be covered up snugly. At the end of two or three days the mould may be put in, as directed for the first bed. If the bed has settled unequally, it must be made even.

When the bed is made entirely of manure, the heap is prepared in the manner last described. The whole process of making the bed, indeed, is just the same. The heat, however, is usually more violent at first, and ventilation needs to be looked after carefully for a few days to prevent fire-fanging. Attention must be given chiefly to letting off the hot steam. If the heat is too great, it may be lessened by making holes in the bed with a hoe handle or a stick. When the violence of the heat has subsided, the mould may be put in as before directed. Persons who are used to making hot-beds often put in the mould as soon as the bed is formed; but, on the whole, it is better for the novice not to do so.

We shall next describe the method of making hot-beds in pits. We have already expressed a preference for these. The bed is easier to make, requires less material, retains its heat longer, and, on the whole, is less troublesome to attend to. The location should be a dry one. The pit may be a simple excavation; but it will be better, in many places, to make it a permanent fixture, and build the walls of brick. This may be done in two ways. First, build a wall three feet deep, the top being flush with the ground line, or an inch or two above it. On this set a frame fifteen inches high at the back and twelve inches in front, as shown in *Fig.* 2. The other and

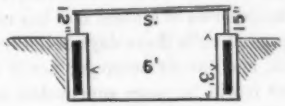


Fig. 2.

better way is to continue the wall a foot above ground, and let the sashes rest on the top of it. To prevent the sashes from sagging, it will be necessary to put cross bars in the pit. The walls will be all the better for being built hollow.

These pits may be heated with manure, or leaves, or both combined, and their preparation will be that already described. When filling in, make the manure somewhat firm with the back of the fork, but do not pack it hard by trampling on it. If leaves alone are used, a little more pains must be taken to make them firm. The directions already given for the mould apply here, and it is therefore unnecessary to repeat them. From six inches to a foot should be left between the surface of the mould and the glass. A permanent pit will be found a very useful adjunct to any place. Besides affording convenient means for forcing, it will often be found useful for storage, and half-hardy plants might very well be kept in a part of it during the winter.

Fig. 3 shows a very convenient prop for holding up the sashes, by the use of

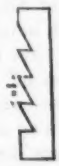


Fig. 3.

which, either at the sides or top, the sash may be raised one or more inches, as required. It is one of the best contrivances that we have used.

"FIRE ON THE HEARTH."

BY GEO. E. WOODWARD, ARCHITECT, &C., 37 PARK ROW, N. Y.

An open fire is one of those cheerful, delightful accessories of a home that has not been improved on in these days of hot water, steam, and hot air furnaces; nor is it likely that it will be soon superseded by any contrivance affording a more genial heat or better and more effectual means of ventilating. No advance has yet been made in any mode of heating that has equal advantages, in point of health, as the open fire. We have economized in fuel, in labor, in dirt, and dust, &c., but in pure heated air, and well ventilated, heated apartments, there is still a wide field for improvement. While some extensive means of heating seem necessary in large houses, that shall be at all times safe and reliable, it is desirable in that room which is used the most, there should be the life-giving, genial, and exhilarating air and influence of an open fire—bright blazing wood, if possible, or flaming cannel coal.

"If wood costs high," says one writer, "I insist still that it ought to be burned. Chiefest of luxuries is an open fire-place, and a wood fire." . . . "An open wood fire is eminently healthy, and good health is cheap at any price." . . . "The good sense of mankind appears to very great disadvantage when it leads to profligate expenditure in almost every other department, and a suicidal parsimony here."

"The days of wood fire are not utterly gone," says Ike Marvel, in that charming book, "My Farm of Edgewood;" "as long as I live, they never will be gone. Coal, indeed, may have its uses in the furnace, which takes off the sharp edge of winter from the whole interior of the house, and keeps up a night and day struggle with Boreas for the mastery. Coal may belong in the kitchens of winter; I do not say nay to this; but I do say that a country home without some one open chimney, around which in time of winter twilight, when snows are beating against the panes, the family may gather, and watch the fire flashing, and crackling, and flaming, and waving, until the girls clap their hands, and the boys shout, in a kind of exultant thankfulness, is not worthy the name."

Says a late writer in the *Atlantic*, "I quite agree with one celebrated American author, who holds that an open fire-place is an altar of patriotism. Would our Revolutionary fathers have gone barefooted and bleeding over snows to defend air-tight stoves and furnace registers? I trow not."

There is among the female portion of almost every household a decided objection to an open fire; and dirt, dust, and trouble form its basis, and perhaps the fact that it is old-fashioned has something to do with it; but in these progressive days we find the remedy for this, and can still enjoy the luxury. We allude to the Patent Parlor Fire-place, or low down grate of Messrs. Andrew & Dixon, of No. 1324 Chestnut Street, Philadelphia, an invention which perfects the open fire-place, and adapts it for use in the most elegantly furnished apartment. The principles of this are a fire flat on the hearth, "warming the feet delightfully," and radiating the heat from a concave cast iron backing or lining. The ashes, sweepings, and dust descend through a flue to the cellar, and are removed but once a year. Oxygen is supplied from below through a cold air box, and the heat is "simply pure air warmed" by passing through a hot bed of coals, and without a draft from doors and windows to promote combustion. Thus a coal fire gives out the "soft, delicious heat of an old-fashioned wood fire." We, however, prefer the blazing, crackling wood, as, living in the country, we reckon its cost at a low figure; and our practical experience with this grate or fire-place shows its complete adaptation to either wood or coal,

and as a coal grate, more economical and effectual, more cleanly and beautiful than any that we have used or examined. Dr. Hall, of *Hall's Journal of Health*, one of the most readable journals of the day, says: "No one who has a wise regard for the comfort, cheerfulness, and health of a family of children, should be without one for a single day." It is certainly a very great advance upon the usual modes of burning wood or coal, and one worthy of the attention of all who have any desire to enjoy the luxury of an open fire.

Mortimer Place, N. J., Jan. 8, 1863.

GLEANINGS FROM MY OWN EXPERIENCE AND THAT OF OTHERS.

BY HORTICOLA.

I. Cuttings of Grape Vines.

It is impossible for me, situated as I am, to procure either spent tan or saw-dust, or even sand, to cover the manure in my hot-beds. I resorted, therefore, to coal dust, (anthracite, hard coal,) which serves a good purpose. It is not only clean, but it absorbs the rays of the sun, and remains warm for a long time, as it does not lose its heat by radiation, on account of its color.

Last spring, I noticed a young grape vine growing in the coal dust, by the side of a pot, containing single eyes of a grape which I intended to propagate, and found, on examination, that one of the eyes, planted in sand, had been washed out, and had struck roots in greater profusion and in much less time than those in the pot. Just at that time I received a number of grape vines from Germany, which had commenced growing in the box, and looked very bad. I cut them back very severely, planted them in pots, and succeeded in saving every one of them. All the wood I had cut off, I planted in the coal dust. My hope, however, was very faint; for the young shoots which had grown were from three to four inches long, and perfectly white. I did not rub them off, but planted the old wood with those shoots on. The coal dust I had mixed with a little sand, such as is found by the road sides. To my great surprise, and contrary to my expectation, *every one of those cuttings grew*, so that I did not lose a single one of them.

II.—Treatment of Grape Vine Cuttings, According to Dubreuil.

Mr. Dubreuil is so skillful a cultivator, and a man of so much scientific knowledge, that he is deservedly considered an authority of the first class by all pomologists and grape vine growers in Europe, as well as in this country. He is, besides, an elegant, pleasing writer. He has published this year a book on the culture of the grape vine in vineyards, or rather on the improvement of vineyards, (*Culture perfectionée et moins conteuse du vignoble.* Paris, 1863,) in which he gives some good advice, especially valuable for France and Germany, in recommending to substitute the plow for the spade; but in that respect there is nothing new for America. It was natural for him, under the circumstances, to ruminate his former teachings; nor do we find fault with him that his book does not contain much that is new.

Perusing the book leisurely, we met, on pages 30 and 31, with the following method of preparing cuttings, which strikes us as very practical and useful. We make extracts from the original, but translate them.

After having said that the cuttings must be taken from the old vines from the fall of the leaf to February, our author continues:

"All cuttings must be made of the same length, say about 16 inches. They must be tied together in small bundles, which must be buried in the following manner: One or more little trenches are opened, about 14 inches wide, and of a depth equal

to the length of the cuttings. The bundles of the cuttings are placed in the trenches in a vertical position, but the *tops downward*. They are then covered with the soil, and a little mound is made on them. When the cuttings are about to be planted, (in March or April,) the lower end of each will have formed a callus of the cellular tissue clearly visible, by which is gained a year over cuttings made in the common way.

"To accomplish the same in another way, the cuttings must, at the moment of planting, be deprived of their epidermis (the brown outer bark) for the space of about four inches from their lower ends upwards, so as to lay bare the green inner bark, (liber.) This is easily and rapidly done, the epidermis having been softened by water or the moisture of the soil in which they were buried. If two thirds of such cuttings grow as have not been deprived of their epidermis, at least ninety-four or ninety-five grow out of every hundred planted with the epidermis removed."

III.—Insects.

1. The Curculio or Plum Weevil.—This is, no doubt, one of the most formidable enemies that infests our gardens, and prevents the cultivation of plums, nectarines, and apricots, almost entirely. Notwithstanding the general experience, I planted eighteen kinds of apricots, all the kinds of prunes known, and some nectarines; but I was determined to be watchful, and to try whether I might be lucky enough to discover some means to keep the curculio in check. When some of my prunes were in blossom, Dr. Grant happened to pay me a visit. He cautioned me against the curculio; but, as my courage was equal to the danger, I did not heed it much. This was on a Friday. The next Sunday morning I looked over my trees, and found, to my utter astonishment, that every one of the little prunes already formed had been stung by a single curculio, whom I discovered and killed. The following year, some of my apricot trees showed fruit, *one* of which had been stung. I cut the egg out with a penknife, and saved the others by painting them over with lime dissolved in water of the consistency of common whitewash. This operation I repeated several times, until the apricots had reached a little more than half their size. Every one of them ripened; they were of a most delicious flavor. Last year I used a common syringe instead of a brush, which had the same effect.

Prunes, however, and nectarines are too smooth; the lime water does not adhere to them. To accomplish my object, I added some dissolved glue to the lime water, and had the pleasure of protecting my prunes and nectarines successfully. Several years ago I syringed my Brown Kale first with a thin solution of soap in water, and then with tobacco water. This operation had the effect of making the tobacco water adhere to the leaves of the Kale, on which the tobacco water collects in drops, just as if they had been greased over. The soap water removed that difficulty. Lime water does not seem to injure either the fruit or the leaves of the trees.

A gentleman from Pennsylvania told me, a few days ago, that large sheets of paper, coated with tar, and placed under the plum or prune trees, kept the curculio off. He assured me that such was the fact; it was corroborated by the experience of many years. He ascribed the results of the tarred paper to the instinct of the curculio to avoid trees so protected, as they must prove a certain destruction to the larvæ; a view held by many also in regard to water under the trees. Still I differ from it. At all events, I will try the tar.

2. The Striped Bug, (*Galeruca vittata.*)—This beetle had so much increased in my garden, although I killed hundreds and thousands of them, that I concluded to give up planting melons and cucumbers. Before I did so, I laid last spring a coat of coal tar on pieces of shingles and pickets, which I stuck around the hills in which I had planted melons and cucumbers. No

striped bugs troubled me any longer. Unfortunately, there is the borer, which stings the vines just above ground, so that vines six or eight feet long commence at once to flag and die, and in a short time often all plants perish which had promised a large yield. Should the remedy communicated to me by the distinguished editor of the HORTICULTURIST be efficacious, it will be of the greatest benefit to the horticultural world.

3. THE ASPARAGUS BEETLE, (*Crioceris* (*Lema*) *asparagi* and *duodecim punctata.*)—Both are equally destructive to asparagus plants; but only the first of the two has been introduced from Europe, so far as I am aware. The beetle made its appearance for the first time on Long Island. A fortnight after I had seen this mentioned in the horticultural journals, I found that pest on my asparagus, although I live on the west bank of the Hudson, and at a considerable distance from Long Island.

The full-grown beetle is not less injurious than the larva. Both devour the leaves of the asparagus plant, and weaken it so that it often perishes.

It is absolutely necessary to go over the asparagus beds once a day, and to destroy the beetles and larvæ persistently. I immerse the shoots in a basin full of a solution of brown soap and tobacco water, and brush the beetles and their larvæ off.

Mr. H. Jæger, in the second volume of his "Practical Vegetable Gardener," (Leipzic, Spamer,) recommends tobacco dust; and as the beetles dislike rain and shade, the use of water sprinkled on them, and to shade the plants with the branches of evergreens.

It is of vital importance to commence the war immediately, when they make their appearance, *before* they lay their eggs. They are found in May and June, and again in autumn.

4. ANTS.—How troublesome several species of them are, is so well known that I need not say a single word about it. Much less known is a sovereign remedy, which has never failed to expel them from the house, the garden, or the hot-bed. I read it a number of years ago somewhere, and being fond of trying experiments, I made use of it, and found it infallible in every instance. This remedy consists in GROUND COFFEE. It is only necessary to sprinkle some of it on the ant hills or on those places where the insects are frequently seen, and within fifteen minutes not one of them will be found there. Last summer they had made a large hill very near one of my fences. Before I expelled them I called together a number of boys and girls coming from a school, to show them the effect of coffee on the ants. The children were not a little amazed to witness the precipitate flight of the ants from their hill, which I had sprinkled with coffee. A few minutes after the sprinkling not a single one could be found, to the great astonishment of the children.

The remedy is so simple and so easy of application, under all circumstances, that I wish to call the attention of the reader to it. I have it, therefore, printed so large. During a series of years I have had so many occasions to avail myself of it, that I can speak with the greatest confidence. I repeat, *it* NEVER *fails.*

[Our readers will all welcome again your practiced pen. You were unconsciously making good plants in your coal dust, from which the reader can gather a hint; and he will remember that it was coal *dust*, and not coal *ashes*. In regard to the method from Dubreuil, much is gained in point of time where the cuttings are already callused when planted. Eyes may be treated in a similar manner, with considerable gain. We do not think your friend's tar remedy will stick. When you try it, try also jarring on other trees. The so-called water remedy has proved to be a fallacy. We leave you to report the efficacy of that remedy; but we can anticipate what it will be. We believe we were the first to call public attention to the Asparagus beetle. We think we first saw it in 1854. Last fall we heard for the first time that it was

in New Jersey. We have seen so much of the ravages of this pest, that we make an earnest appeal for its destruction before it spreads over the country. The surest way is to brush the beetles into a pan of water. In half an hour we have killed thousands in that way. Killing is the only remedy that should be thought of. Thousands will bless you, Horticola, for the ant remedy. But we were almost afraid to publish it, lest the price of coffee, now almost fabulously high, should go up still higher. It must be real *Java*, and not roasted wheat, rye, or beans. Bipeds may be deceived with such things, but we doubt whether the ants will.—Ed.]

THE AZALEA—ITS PROPAGATION IN ROOMS.

BY THE EDITOR.

We stated in the last article that the Azalea was not easy to propagate in rooms, and that it was better to purchase young plants from the florist. This we can only repeat. Still, some of our readers want to "try it," as they say. We admire that kind of courage which is equal to an emergency, and accordingly give the information asked for. The directions will be somewhat different from those we should give to a person who possessed a greenhouse, or even a hot-bed.

It is desirable to have a shallow pot or box. Such a pot may be bought at some of our principal seed stores. We used to have them made with a rim on the outside for holding a little water. A shallow box, a foot square, may be made of stuff three inches wide, making two or three holes in the bottom for drainage. A suitable compost for striking the cuttings in may be made of sharp sand of any kind and charcoal dust, mixed in equal proportions. In rooms we used to have the best success with Azalea cuttings, taken just as they were beginning to turn brown; it will be proper to take them as soon as the leaves on the new shoots are well developed. It must be understood, however, that, with proper appliances, cuttings may be taken at almost any time, though young wood is found to strike better than old.

First fill the pot or box with compost. Then take cuttings of the new shoots, as above described, from an inch and a half to two inches long. Cut them square off immediately under a leaf, and remove the leaves from the lower part for the space of about half an inch. Now with a sharpened stick make little holes in the compost about two inches apart, and half an inch deep, into which insert the cuttings, and press the soil firmly around them. When they are all in, water them with *warm* water, and set the pot or box where it will have a pretty good light, but no sun. It should not be set under the shade of other plants. A good place is a north or west window. The cuttings, however, should be covered with a bell or hand-glass. A good substitute may be made of white paper oiled. If the pot must be placed at a south or east window, a piece of paper should be thrown over the glass when the sun shines. The glass should be lifted occasionally, especially if much moisture accumulates on the inside; for unless fresh air is thus admitted, mould is apt to appear, and the plants will damp off. The soil should not be allowed to get dry; and when watered, the water should be *quite* warm. Cuttings strike best when kept warm at the bottom and cool at the top; and the nearer this condition is attained in a room, the greater will be the success. It will not help the rooting process in the least to take the cuttings out every day, or even two or three times a day, to see whether they have rooted; on the contrary, it will be very apt to defeat this interesting process altogether. We mention this, because we have often seen cuttings thus treated, under the impression that no harm was being done.

At the end of a month some of the cuttings will probably have taken root. To ascertain this, take hold of them gently, and see if they will come out. If you find the least resistance, you may conclude that they have rooted. This may also be known by their making a new growth. When it is ascertained that they are well rooted, they should be put in small pots. They must be removed from the cutting-pot very carefully. Take in the right hand a stick in shape like a book-folder; run it down the side of the pot and under the cuttings, and gently lift them up, when the soil will break and fall away. While this is being done, the cuttings, one by one, should be taken hold of by the left hand, and carefully taken out, with as much of the soil as will adhere to the roots. Have prepared the compost mentioned in our last. Put a potsherd over the hole in the bottom, and fill the pot a little more than half full of soil. Take the cutting between the thumb and forefinger of the left hand, and hold it in the middle of the pot, with the roots resting on the soil, and being well spread out; then with the right hand fill up the pot gradually. When it is full, knock the bottom of the pot on the table to settle the soil in and around the roots; then with the thumbs press the soil somewhat firmly around the edge of the pot, and, if necessary, add more soil. When finished, there should, in a small pot, be nearly half an inch of space between the surface of the soil and the top of the pot, in order that it may hold water enough to go entirely through the ball of earth. In putting earth in the pot in the first instance, moreover, the quantity should be so regulated that the plant, when potted, will be but little or no deeper in the soil than it was in the cutting-pot. The plants should be watered as soon as they are potted; after which the treatment will be that given in our last article.

We have been somewhat minute in our directions, with the hope that they may be useful to beginners. In another article will be given a descriptive list of some of the best varieties of the Azalea.

NEW OR RARE PLANTS, &c.

We propose hereafter to keep our readers somewhat posted in regard to the appearance of new plants, &c., as well abroad as at home. The following list we copy from the London *Journal of Horticulture*, and other sources.

Dipteracanthus affinis, (Splendid Dipteracanthus.) — *Nat. ord.*, Acanthaceæ. *Linn.*, Didynamia Angiospermia. One of the most beautiful of Acanthaceous plants. Native of Brazil. Introduced by Messrs. Henderson, Wellington Road Nursery. Flowers scarlet, blooming in July.—(*Botanical Magazine, t.* 5414.)

Eria myristicæformis, (Nutmeg Eria.)—*Nat. ord.*, Orchidaceæ. *Linn.*, Gynandria Monandria. Pretty and fragrant. Native of Moulmein. Introduced by Messrs. Low & Co., Clapton Nursery. Flowers white, blooming in September.—(*Ibid., t.* 5415.)

Heliconia brevispatha, (Short-spathed Heliconia.)—*Nat. ord.*, Musaceæ. *Linn.*, Pentandria Monogynia. Probably a native of South America. Flowers yellow and scarlet, opening in a warm stove during the summer.—(*Ibid., t.* 5416.)

Ligularia Hodgsoni, (Mr. Hodgson's Ligularia.)—*Nat. ord.*, Compositæ. *Linn.*, Syngenesia superflua. Native of North Japan. Believed to be hardy. Flowers bright yellow, blooming during July in a cool frame.—(*Ibid., t.* 5417.)

Adenium obesum, (Thick-stemmed Adenium.)—*Nat. ord.*, Apocyneæ. *Linn.*, Pentandria Monogynia. Native of Aden. Flowers light pink, with dark pink margin. Requires a hot, dry climate.—(*Ibid., t.* 5418.)

Burlingtonia decora *var.* picta, (Painted Neat Burlingtonia.)—*Nat. ord.*, Orchidaceæ. *Linn.*, Gynandria Monandria. Native

of Brazil. Flowers white, mottled with pink and purple. Blooms in October.—(*Ibid.*, *t.* 5419.)

GASTRONEMA SANGUINEUM.—Cape of Good Hope bulb. Flowers scarlet.—(*Floral Magazine.*, *pl.* 174.)

CLEMATIS REGINÆ.—Cross between C. azurea and C. lanuginosa. Flowers purplish-blue.—(*Ibid.*, *pl.* 175.)

PICOTEE, *Colonel Clark*, rosy scarlet, edged white, very clear, no bar. CARNATION, *Lord Clifton*, a pink and purple bizarre.—(*Ibid.*, *pl.* 176.)

CLEMATIS FORTUNEI.—Introduced from Japan by Mr. Fortune, and flowered by Mr. Standish, Royal Nursery, Ascot. Flowers white, very large, double, and fragrant.—(*Florist and Pomologist*, ii., 169.)

Of *foliaged plants*, we notice *Coleus atropurpureus nigricans*, described as entirely different from *C. Verschaffeltii*, the foliage being flat, smooth, and of thick substance, and of nearly black metallic luster. It will probably prove to be an acquisition among ornamental leaved plants.

Among Verbenas, the *White Lady* seems to stand pre-eminent, and is said to be the best white ever raised. It is said to be a clear, *pure* white, and to carry "nearly double the quantity of bloom" of Mrs. Holford. It is said, moreover, to have a "delightful jessamine fragrance."

Mimulus maculosus, a cross between M. cupreus and "Gaiety." It has the dwarf habit of cupreus, while the flowers are some two inches in diameter, and "very richly marked." It is said to be a "charming acquisition."

Mimulus tigrideoides, "another hybrid of M. cupreus with varieties of M. quinquevulnerus maximus, partaking of the good qualities of both. The magnificence, diversity, and large profusion of the flowers, as beautifully marked as a Calceolaria, with its fine dwarf habit, will make it a general favorite." The Mimulus should be grown in a shady border.

Lobelia Paxtoniana, a seedling from speciosa. The flowers are described as larger than speciosa, with a pure white center, shading off to a blue margin. The habit is even more compact than speciosa.

Ligularia Kæmpferii argentea marginata. If this does not prove to be a good plant, it will not be because it has not names enough. It is described in E. G. Henderson's Catalogue as "a highly ornamental evergreen herbaceous plant, from nine to twelve inches in height, with sub-erect, rounded, kidney-shaped, firm, leathery leaves," "richly margined and barred with pure creamy white." It will, no doubt, prove to be a fine plant for greenhouse and border decoration. It is called hardy, but that remains to be proved with us.

Lonicera Schmitziana, introduced by Mr. Roezl from Mexico, and said to be "the finest of all the scarlet-flowering climbing species yet introduced." This will, no doubt, be an acquisition to our list of Honeysuckles.

Lonicera brachypoda aurea reticulata.—This is the most beautiful of our climbing Honeysuckles, notwithstanding the length of its name. It was introduced by Mr. Fortune, and sent out here last spring. The leaves are beautifully netted with golden yellow veins, and look like an Anœctochilus. We are greatly pleased with it. It will be a general favorite.

Fuchsia "Pumila," described as a beautiful little variety, well adapted for beds and margins, and said to be "an exquisite little bush even without its bloom," which, however, is very profuse, of a rich, glossy crimson.

Gazanias.—Of these we have *G. aurantiaca*, bright yellow, with black ring in center; spotted white. *G. grandiflora*, larger flowers than splendens, with brighter color and more distinct center. *G. Soucii*, light yellow, with jet black central ring, blotched white.

Of *Pears* we notice two, the *British Queen* and *Prince of Wales*, both spoken highly of, and the first said to be one of the best ever raised. They are both English seedlings.

We also notice a new *Grape*, the *Child*

of Hale, described in the *Journal of Horticulture* as having an enormous bunch, stout, woody stalk, with a profusion of large, round, amber-colored berries on very short and stout berry stalks. Skin thin, flesh firm and crackling, of consistency of Muscat of Alexandria, but without the flavor. Juicy and sweet, considerable amount of richness, but, unfortunately, the skin astringent.

Of home productions, we notice that Messrs. Wilder & Co. send out *Clapp's Favorite* Pear. We have not had an opportunity of testing the fruit, and can say nothing on this point of our personal knowledge. We have seen a specimen, however. It closely resembles the Bartlett, and is said to be even finer.

Messrs. Dreer and others send out the *Philadelphia Raspberry* and *French's Seedling* Strawberry. We have not seen either.

Messrs. Dailledouze, Zeller, & Co. send out their seedling monthly Carnation *Beauty of Brooklyn*. The form is good, and the colors pure and distinct, the ground color being white. It is a profuse bloomer. Some time since we made a portrait of this fine Carnation, but lost it.

Mr. Peter Henderson sends out a monthly Carnation, named *Astoria*, raised by M. Donadi. This belongs to the Picotee class. It is described as a flower of large size, (nearly three inches in diameter,) clear canary yellow, the edges regularly marked with pencilings of scarlet, crimson, and white.

Lychnis grandiflora, a hardy herbaceous plant, raised by Mr. Robert Veitch, of New Haven, from seed sent from Japan. Mr. Henderson, who sends it out, says, "It has been a most attractive plant with me during the past summer, having flowered without intermission from June till October. Flowers produced on stalks about nine inches high, of a peculiar shade of orange scarlet, two inches in diameter."

Most, if not all, of these plants, we suppose, may be bought this spring of our enterprising florists and seedsmen. We shall give an additional list next month.

MONTHLY CALENDAR.

We propose to add hereafter a briefly monthly calendar, which we hope may prove useful to some of our readers, though we confess that we do not attach as much value to such things as some others do. We add it as an experiment. If it should prove acceptable to our readers, we will take pains to elaborate it to some extent, and make it as useful as may be.

Orchard and Fruit Garden.—At this season there will be but little to do, unless some things have been neglected which might have been done before. The orchard and fruit garden should be looked over for the destruction of insects, especially nests of the canker worm. Trees should be scraped, and freed from moss and loose bark, which harbor insects. Grape vines may be pruned, and towards the middle or end of the month general pruning of fruits may be practiced. Scions for grafting may still be cut. Hardy vines may be propagated from eyes towards the end of the month, using bottom heat.

The Grapery.—The *Cold Grapery* will need looking after occasionally, to see that every thing is in order. If there are appearances of mice, use some of the phosphoric remedies to destroy them. The *Hot Grapery* will require constant attention. Keep the temperature as uniform as may be, and increase the heat as may be desired. In houses just started, the vines should not be tied up till the buds have broken. Be careful not to let currents of cold air blow on the vines. Syringe in the morning, and not at night. Keep the floor of the house damp in bright weather. There will be little need of ventilation now, except at the top or ends. Out-

side borders should be well protected. In very early houses thinning out should be attended to, the bunches as well as the berries. Beginners are apt to leave too many of both.

Green-House.—At this season of the year ventilation is an important matter. It should be so regulated as to avoid a sudden change of temperature; and care should be taken not to allow a current of cold air to blow directly on any plant while growing. See that no plant flags for want of water. The novice, in watering, will be careful not to wet his Camellia blooms. Verbenas, Petunias, and other bedding plants may now be propagated for spring use. The house generally should be looked over, dead leaves removed, the surface of the earth stirred up, and every thing made clean and tidy. Such plants as need it should be repotted, more especially those in small pots that it is desired to push forward. To grow stocky and shapely, plants should have plenty of room. Hyacinths, Tulips, and Narcissus that have passed out of bloom may be put in a pit out of doors. Look over Caladiums, Begonias, and other dormant plants. If some are wanted early, they may now be repotted.

Plants in Rooms.—The wants of these should be attended to daily. Never water till the soil becomes a little dry on the top, and then give enough to go entirely through the pot. The plants will be greatly benefited by being watered "overhead" daily. This may be done by a small broom wisp. Give air on all pleasant days, and change the position of the plants from time to time, in order that all may get a due share of sunshine and light. Remove dead leaves, stir up the soil occasionally, and keep the foliage as free from dust as possible.

Pleasure Grounds.—It is to be supposed that every thing has been put in order here for the well-being of the plants. It is well, however, to go through the garden occasionally, and repair any damage that may have been done by heavy winds and snow. Where the branches of evergreens, particularly Arbor Vitæ and Junipers, are bent down by the snow, it should be removed. If lawns were not top dressed in the fall, it may be done now. Towards the end of the month hardy shrubs that need it may be pruned. Roses should be left later. This is a good time to replace labels that have become obscure. Repair inclosures, roads, &c., and anticipate as much as possible the work of spring.

Vegetable Garden.—Not much can be done here either. Bean poles and Pea brush may be cut and stacked. Collect manure and leaves for late hot-beds. Beds that are already at work should be well watched at this season, and ventilated as required. Be careful to retain an equal temperature in cucumber frames, neither too high nor too low. Pinch out the leaders when a foot or so long. Sow in frames early Cucumbers, Melons, Egg Plants, Peppers, Radishes, Lettuce, Tomatoes, Cauliflowers, Cabbage, &c. For general crop the end of the month or first week in March will be time enough; the plants will be better than if sowed earlier. Collect all kinds of rubbish, and get things in order generally for spring work. Make out lists of seeds, and purchase them in good season.

EDITOR'S TABLE.

To Contributors and Others.—Communications, Letters, Catalogues, Periodicals, Remittances, Packages by Express, Advertisements, &c., should be directed to Mead & Woodward, Editors and Proprietors, 37 Park Row, New York. Exchanges should be addressed to "The Horticulturist."

"Thou Shalt not Steal."—As this commandment seems in some quarters to have become obsolete, or, perhaps, was never known, we print it for the benefit of those interested. All right-thinking men have come to regard literary theft as among the most despicable of mean things. To appropriate another's labors without acknowledgment at once places a man without the pale of good society. We have a case in point, having lately received a pamphlet entitled, "Our Hardy Grapes: What to Plant," &c., "made up" without one word of acknowledgment. Our opinion of it is told in a few pointed words. It is the most impudent and shameless piece of plagiarism that has ever come to our knowledge. With good material before him, the person who did the "clipping" was not sufficiently master of the subject to produce a work worth the paper on which it is printed. It is a humiliating reflection, that persons can be found to sacrifice all sense of shame and decency for the sake of a few pennies.

Revised Prices.—We desire to call the attention of our readers to the revised prices of our back volumes, which now answer many inquiries that have been made since the price list published in the December and January numbers. We can furnish but few odd volumes back of 1860. From 1860 to the present time our sets are not numerous. They commence with the editorial management of Mr. Mead, and comprise all the connected articles on Grape Culture, Landscape Gardening, Rural Architecture, &c., and form an encyclopædia of Horticulture, and the useful and ornamental pursuits of rural life, not obtainable in any other form. The ten dollar set from 1860, comprising four bound volumes and a subscription for 1864 and 1865, will form a valuable and attractive addition to any private library in the country. It is fully illustrated with many hundred engravings, and contains upwards of 3,000 pages of reading matter.

Parties making up clubs can include the unbound volumes for any former or future year; thus, two persons may pay each two years in advance, making four copies for six dollars, or eight copies or volumes may be taken in a similar manner for ten dollars. If the volumes are bound in cloth, 75 cents each, and in half morocco, $1 each additional.

Those having incomplete sets can probably perfect them by immediate application. Those subscribers who have already paid for 1864 can avail themselves of the above proposition, by remitting the amount necessary above that which they have paid.

The Illustrated Annual Register for 1864.—This welcome annual comes to hand filled with its accustomed interesting matter, relating to a great variety of subjects useful to the farmer and the horticulturist. Mr. Thomas has performed his task in a very acceptable manner. We commend the Register to all interested in rural affairs. It is published by Messrs. Tucker & Son, Albany. Price, 25 cents.

RAND'S FLOWERS FOR THE PARLOR AND GARDEN.—Having previously announced this work, we propose now to look at it a little in detail. The first chapter is devoted to the Green-house and Conservatory, beginning with some good advice in regard to building a green-house; and the reader is particularly advised to "avoid 'cheap buildings.'" After describing the mode of building a house with brick foundation, three feet side lights, &c., the author says, "Now a house of this description can be built for about ten dollars per running foot." In this estimate is included "the glazing, of good serviceable glass, as well as hinges, ropes, and pulleys," and the heating apparatus too, we suppose, as this is a necessary part of a green-house. Now we wish to say, that whatever may be the cost in Boston, this house can not be built for any such sum in New York. If our Boston friends can do it, they can get themselves into a thriving business by coming to this city. We should not find it easy to do it with unplaned boards. We notice this point at some length, because we think such statements are only calculated to retard the building of green-houses by the disappointment that follows. We sincerely wish that the best of green-houses could be built for such a sum. The same remarks will apply to other of the author's estimates. The remainder of the chapter is mostly devoted to stocking green-houses, in which we find much sensible advice. We must thank Mr. Rand for his appeal in behalf of that old, but still fine plant, the "Bridal Rose." Years ago it was one of our favorites, and has not ceased to be so yet. It is a fine room plant.

The next five chapters are devoted to Window Gardening. The general remarks on heating, ventilation, watering, &c., are in the main unexceptionable. They may be studied with profit. The remarks on potting are too meager to be of much use to the novice. This is a practical point that should not have been passed over so slightly. In regard to manures, we must take exception to the recommendation of guano: the novice will do well to let it alone. Mr. Rand is mistaken in supposing that the red spider is seldom found on room plants. It is worse in rooms than in the green-house. The list of plants recommended for room culture is open to criticism. While many of them are certainly adapted to the purpose, many others just as certainly are not, if we take our own experience as a guide. We were never able to grow them in a satisfactory manner, and we have never seen others who could.

Next follow three chapters on bulbous roots, with lists of each. Their treatment is made plain enough to insure success. Bulbs are not only of easy culture, but among the least troublesome of plants to grow. The chapter on forcing in winter such plants as the Violet, Daisy, &c., the novice will find not less interesting. Women, however, will hardly find it pleasant to attend to out-door frames in the winter. Balcony Gardening, which follows, is invested with a good many charms, but we doubt whether it will ever become popular in this country. Several chapters follow on the Wardian Case, Hanging Baskets, Waltonian Case, and Aquaria. These are the most valuable part of the work. The chapter on specimen plants may be studied with profit. The remaining chapters are devoted mainly to out-door gardening, and, on the whole, are the least satisfactory part of the work. We must except, however, the descriptive lists, which are very useful. We must except, also, the chapter on wild flowers; for the subject is treated in an interesting and instructive manner.

We have thus given the reader a general idea of the work, which, notwithstanding some shortcomings, is entertaining and instructive. Mr. Rand's style is pleasant, free, and even polished. The vignettes are gems of art. The publishers, Messrs. Tilton & Co., of Boston, have done their part of the work most admirably. The printing is done on tinted paper by the

Riverside press, and is a splendid specimen of the typographical art.

Death of Howard Daniels.—We have been pained to learn that Mr. Daniels died recently at the Eutaw House, Baltimore, of hemorrhage of the stomach. Mr. Daniels was well known in New York as an architect and landscape gardener. His first public work as a landscape gardener, we think, was the Cemetery at Cincinnati. At this time he went to Europe to study the best works of art there, and returned with his mind well stored with professional knowledge. Shortly after he settled in New York, and became well established in business. He became a competitor for the plan of laying out the Central Park; and though not successful, his was among the plans to which prizes were awarded for their merit. About three years since he secured the laying out of the grounds of Druid Hill Park at Baltimore, upon which work he was engaged up to the time of his death.

Mr. Daniels died in the prime of life, being only forty-nine years of age. He was a man of great energy, and possessed a mind of considerable originality, which he had improved by hard study. He was fond of his profession, and strove to excel in it. His works, public and private, show that he possessed both taste and skill. He was a spirited writer, as his articles in former numbers of the Horticulturist will show. He had many and warm friends, who will lament his untimely death. He leaves a wife, but we think no children. We have been promised a sketch of his life by one who knew him longer and more intimately than we did.

Grafting Wax.—The grafting season is approaching, and in the midst of it we are often asked where a good grafting wax can be got. We have for several years used that made by Mr. Trowbridge, of New Haven, and have found it so entirely satisfactory that we recommend it without hesitation. He has also an excellent preparation for covering large wounds made by pruning and otherwise. Something of this kind is of such frequent use, that it should be kept always on hand.

Mr. Dreer's Removal.—We learn that Mr. Dreer, Philadelphia, has removed from his old stand to a new and spacious store, No. 714 Chestnut Street, which he has fitted up in a handsome manner. This we take to be evidence of a successful business; indeed, we notice that seedsmen generally are doing a thriving trade. We hope Mr. Dreer will continue to sell as good seed in the new store as he did in the old one, and prosper greatly.

A New Era in Propagation.—One of our cotemporaries has discovered a "big thing" in the way of propagation. A perspective view of a portion of the Kew Palm House has been copied from an English journal, and presented as a frontispiece, with the following inscription: "A southern view of a *New* Propagating House." The thing is too good to be lost. Only think of a *propagating* house a hundred feet high! Is it possible that there are any people who can be deceived with such things?

Dissolution of Copartnership.—We notice that Messrs. Buist & Son, of Philadelphia, have dissolved partnership, and in doing this they have divided the business, the elder Mr. Buist taking the nursery and seed-growing department, and the younger the seed and implement business. This is one of the oldest houses in the country, with a well-known reputation, and we hope each may enjoy the same success that marked the firm of Robert Buist & Son.

"New Lamps for Old Ones."—We call the attention of our readers to the fact that we will give two new volumes unbound, for single volumes of the years 1846 to 1850, inclusive, and 1853, 1858, and 1859. Our early subscribers who

have irregular sets embracing these volumes, will thus be enabled to continue their subscriptions for many years without a further cash investment. Those who have complete sets may class them among the rare books in their library. The HORTICULTURIST is not stereotyped, and but few more copies are printed than are subscribed for. As a history of horticulture, landscape gardening, rural architecture, and the progress of rural art and taste, it is full and complete, splendidly illustrated, and covers a period of nearly twenty years. Those who continue to take it may look upon it as one of the best investments that can be made, as the time will come when it will more than realize its cash cost with interest. The increase of public taste in all matters relating to rural life makes all authority on such matters of appreciating value.

CATALOGUES, &c., RECEIVED.

Fleming & Davidson, 67 Nassau St., New York.—Descriptive Catalogue of Choice and Select Flower and Vegetable Seeds.

Peter Henderson, Jersey City, New Jersey.—Spring Catalogue of New Plants.

Catalogue of the Officers and Students of the State Agricultural College, Lansing, Michigan.—Possesses a good many valuable features.

Report of the Commissioner of Agriculture for January, 1864.

Prince & Co., Flushing, L. I.—Select Catalogue of Fruit and Ornamental Trees, Shrubs, Vines, &c.

Correspondence.

EDITOR HORTICULTURIST,—I wrote to you yesterday about stopping the vines at this season of the year. On going out to see the vines, I discovered a large number of bugs on a seedling grape which blossoms earlier than the others, and is now in bloom. They eat the young fruit before it is fairly set. I have killed a large number, but they are not easy to take, and I am so unwell that I can spend but a few minutes at a time among the vines.

Please tell me what they are, and the remedy, if there is any. I shall take a bowl of water next time I visit them, and let them drop into that. I caught these by putting pieces of leaves in for them to hide themselves under.

Yours, etc., M. J. PARRISH.

[Your letter was mislaid, or it would have been sooner answered. This brown beetle is a nuisance. The remedy you propose is one of the best. You can knock them in a sheet, but the water is best. A decoction of common brown soap, with a little lime in it, will drive them off, but they will be sure to return.—ED.]

Will you be kind enough to say in February number if the "Bignonia venusta" can be worked on "Tecoma capensis," and oblige,

Very truly yours,
CHARLES N. DOANE.

JAMAICA, L. I.

[The Bignonia can be worked upon the Tecoma. It may be done by the usual "split" grafting.—ED.]

[We are compelled to omit much interesting correspondence and other matter, but will find room for it next month.]